

What is claimed is:

1. A non-contact position sensor comprising:  
a sensor assembly comprising at least one magnet disposed adjacent a magnetic field sensor; and  
an activating member;  
said magnetic field sensor providing a first output when said activating member is in a first position relative to said sensor assembly and a second output when said activating member is in a second position relative to said sensor assembly, said activating member not extending between said magnet and said magnetic field sensor in either of said first and said second position.
2. The position sensor of claim 1 wherein said magnetic field sensor comprises a Hall sensor.
3. The position sensor of claim 1 wherein said sensor assembly is mounted to a rail of an automobile seat rail system.
4. The position sensor of claim 3 wherein said sensor assembly is mounted directly to said rail.

5. The position sensor of claim 3 wherein said sensor assembly is mounted to said rail via a bracket.
6. The position sensor of claim 1 wherein said activating member is a rail of an automobile seat rail system.
7. The position sensor of claim 1 wherein said activating member is attached to a rail of an automobile seat rail system.
8. The position sensor of claim 1 wherein said sensor assembly is mounted on a first rail of an automobile seat rail system and the activating member is a second rail of said automobile seat rail system.
9. The position sensor of claim 1 wherein said at least one magnet has a C-shape cross section.
10. The position sensor of claim 1 wherein said at least one magnet comprises a first and second magnets.
11. A seat position sensor system comprising:  
a seat rail system comprising a movable rail and a stationary rail;

a sensor assembly comprising at least one magnet and a Hall device, said sensor assembly being mounted to a first of said movable rail and said stationary rail; and

said Hall device providing a first out put when said movable rail is in a first position relative to said stationary rail a second output when said movable rail is in a second position relative to said stationary rail, said second of said movable rail and said stationary rail not extending between said at least one magnet and said Hall device in either of said first position and second position.

12. The system of claim 11 wherein said sensor assembly is mounted to said movable rail.

13. The seat position sensor of claim 11 wherein said sensor assembly is mounted to said stationary rail.

14. The system of claim 11 wherein said sensor assembly is mounted to one of said movable rail and said stationary rail via a mounting bracket.

15. The system of claim 11 wherein said at least one magnet comprises a C-shape magnet.

16. The system of claim 11 wherein said at least one magnet comprises a first and second magnet.

17. The system of claim 11 wherein one of said movable rail and stationary rail comprises an activating member, said activating member being in a first activating position relative to said sensor assembly when said movable rail is in said first position relative to said stationary rail, and said activating member being in a second activating position relative to said sensor assembly when said movable rail is in said second position relative to said stationary rail, said activating member not extending between said at least one magnet and said Hall device in either of said first and second activating positions.

18. A method of sensing vehicle seat position comprising:  
providing a sensor assembly comprising at least one magnet and a Hall device;  
mounting said sensor assembly to a first seat rail, said Hall device providing a first output when said sensor assembly is in a first position relative to a second seat rail and a second output when said sensor assembly is in a second position relative to said second seat rail, said second seat rail not extending between said at least one magnet and said Hall device in either of said first and second positions; and  
determining a position of said seat in response to said output.

19. The method of claim 18 further comprising mounting an activating member to said second seat rail, said Hall device providing a first output when said activating member is in a first position relative to said sensor assembly and a second output when said activating member is in a second position relative to said sensor assembly, said activating member not extending

between said at least one magnet and said Hall device in either of said first and second position of said activating member.

20. A sensor comprising:

at least one magnet;

a magnetic field sensor disposed adjacent said at least one magnet;

said magnetic field sensor providing a first output when an activating member is in a first position relative to said at least one magnet and said magnetic field sensor and a second output when the activating member is in a second position relative to said at least one magnet and said magnetic field sensor, the activating member not extending between said at least one magnet and said magnetic field sensor in either of said first and second positions.